

Designed for learning: A case study in rethinking teaching and learning for a large first year class

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Abstract: This paper presents a case study in which the principles of scholarship were applied to designing an approach to learning suitable for large classes. While this case study describes an Australian first year Business Law unit, the findings presented in this paper would be relevant to a wide range of teachers faced with large enrollments in first year higher education courses. In the present case, the teacher had the challenge of teaching very large first year classes comprising students from diverse linguistic and cultural backgrounds, many of whom were enrolled in the course not from choice but because it was compulsory for their degree. In this paper the authors describe how the teaching of the course was designed to enhance and encourage student learning. The authors' focus is on implementation of first year curriculum design principles; use of computer-based tutorials and audience response systems; and a team approach to teaching. The teaching practices discussed in this paper are underpinned by references to relevant literature and contextualized within an ethics approved research project. The findings presented in this paper are likely to be of interest to teachers of law, teachers of large classes, and to curriculum and academic developers.

Keywords: case study; curriculum design, large class teaching, computer-based learning, team teaching

I. Introduction.

In recent times traditional transmissive teaching methods have been challenged and student-oriented approaches to teaching and learning advocated (Keyes & Johnstone, 2004; Kift, 2008; Trigwell & Prosser, 2003). In 2009, Kift conducted a seminal study that resulted in the development of a transition pedagogy designed to enhance student learning in first year university courses. Kift (2009) identified six First Year Curriculum Principles: transition; diversity; design; engagement; assessment; and monitoring and evaluation. Whilst all six of these principles were relevant to the redesign of the first year Business Law unit offered by Curtin University, this paper focuses on the principles of design, engagement, and monitoring and evaluation because these were most critical to the renewal process undertaken. The authors believe that curriculum design and delivery in a manner that enables student engagement is closely linked to the strategies used for monitoring and evaluation, for example, by providing formative and summative assessment tasks and feedback at appropriate levels and times, and by carefully evaluating and monitoring the implemented strategies.

Consistent with current global trends in higher education, the first year Business Law unit referred to in this paper attracts a large and diverse student cohort (Altbach, Reisberg, & Rumbley, 2009). It should be noted that, in Australia a 'course' is often referred to as a 'unit' so

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in this paper the word ‘unit’ will be used to describe a twelve week study period with a time allocation of three contact hours worth 25 credit points within a 600 credit point three-year degree program. The unit discussed in this paper is managed by the ‘unit coordinator’, who is based at University’s main campus in Western Australia. According to the Curtin Business School Unit Coordinator Role Statement (2011):

Unit coordinators are responsible for the overall management and delivery of units in accordance with University policies and procedures, and quality assurance. They are responsible for designing and facilitating the best teaching and learning experience for staff and students. They also have a critical role in the leadership, development, and mentoring of sessional and other casual staff who are appointed to work with the unit coordinator to deliver units.

A large teaching staff of approximately 40 people is employed by Curtin University to deliver the first year Business Law unit. It is taught in multiple locations within Australia and overseas. This particular unit is one of eight common core business units within a three-year Bachelor of Commerce Degree program comprising 24 such units. Each year about 3500 students enroll in the first year Business Law unit. In 2008, when the unit was reviewed, 1500 students were taught at the main campus using a face-to-face mode of teaching while another 1000 students were taught through distance education, online and through Open Universities Australia (OUA). A further 1000 students were taught through associated colleges and branch campuses in Sydney, Sarawak, Singapore, and other diverse locations. In 2012, the enrollments and diversity of locations remained largely unchanged. The student cohort included school-leavers and mature-aged students studying full-time or part-time by means of online, face-to-face, or distance modes of delivery. The students came from diverse cultural and linguistic backgrounds (Curtin University, 2011). Table 1 shows a breakdown of course activity for the Bachelor of Commerce, of which the unit under discussion is a part:

Table 1. Bachelor of Commerce Course Total Student Enrollment 2008 – 2012.

130099 Bachelor of Commerce	2008	2009	2010	2011	2012 YTD
Domestic Commonwealth supported students	4247	4432	4238	4354	4380
Domestic full fee paying students	75	46	24	10	7
International fee paying students Onshore	3255	3542	3765	3584	3056
International fee paying students Offshore and partners	4082	4225	4481	4147	3715
Total Students	11659	12245	12508	12095	11158

The staff teaching the unit was similarly diverse and situated in multiple locations and time zones. Some of the teaching staff may not have had regular contact with colleagues because of their widespread locations. The size and diversity of the student body and the geographical separation of the various campuses presented special challenges in the delivery of the course.

Considering the complexities described, the unit coordinator believed it was essential to apply principles of scholarship and Kift’s (2009) transition pedagogy to the review and redesign

this unit (Glassick, 2000). In 2007 Curtin University initiated a systematic comprehensive review of all units. As a result of institutional imperatives and informed by the student voice, which indicated students wanted more engaging, flexible learning opportunities and resources, the unit coordinator investigated strategies to improve delivery of the course. As a result of these investigations, the unit coordinator decided to reorganize the delivery of the unit, in particular by using computer-based tutorials, an audience response system, and a team teaching approach.

The purpose of this paper is to explain the strategies used by the first author who was the unit coordinator in redesigning the delivery of a large first year Business Law unit. Teaching and learning related data, collected by the unit coordinator, form the basis of this case study which the authors believe will be useful to other academics interested in curriculum design for large classes. The unit coordinator also participated in a pilot study about teaching practices in higher education settings conducted by the second author. Data from the pilot study were collected by means of videoed teaching observations, semi-structured interviews, and a focus group. The preliminary results of the pilot study, which were aligned with peer review of teaching, have informed the development of this case study and are referred to in the section on monitoring and evaluating. The third author developed the computer-based resources and provided advice regarding the use of computer-based tutorials in teaching large first year Business Law classes. The results of this case study were significant and contribute to the existing literature because they describe a complex and potentially unusual teaching situation in which recognized good practices and theory in undergraduate education and curriculum design were implemented (Chickering & Ehrmann, 1996; Chickering & Gamson, 1987; Kift, 2009). The focus of this paper is on the design, engagement, and monitoring and evaluation elements of Kift's (2009) transition pedagogy and how it was applied in face-to-face, distance, and online teaching situations on and away from the main campus.

The individual case study illustrates answers pertaining to the unit coordinator's research question which asked "How can curriculum in a first year Business Law unit be designed to engage large numbers of students and provide them with flexible opportunities for learning?" The results are integrated throughout this paper as a narrative account. Hence the reader will not find a "section" on results. Please note that the individual case presented in this paper was part of a larger case study involving 29 participants and using a range of evidence from multiple sources (Yin, 2009). According to Tight's (2003) analysis of research in higher education, although research at the individual case level was less common and could lack credibility due to the use of a small sample size, nevertheless, it could be "illuminating" and "exemplifying" (Tight, 2003, p. 203). The account presented in this paper is likely to be of interest not only to teachers of law, but to all teachers of large classes regardless of discipline and to curriculum and academic developers generally.

II. Designed For Learning: A Review of the Literature.

Traditionally, university courses have been delivered by giving lectures and tutorials. Typically, lectures are given to very large groups of students, particularly first year students in cross-disciplinary courses such as Law, which is taught in both Law and Commerce degrees (Fitzpatrick, 2009; Mulryn-Kyne, 2010; Owens & Wex, 2010). Although lecturing is commonly used, its effectiveness is very much dependent on the quality of teaching, and research has shown that student-oriented approaches were preferable (Harvey, Drew, & Smith, 2006; Trigwell & Prosser, 2003). Good teaching was characterized, for example, by active learning, rapport,

feedback, resourcing, and management (ALTC & TEDI, 2003; Cannon & Knapper, 2011; Chickering & Ehrmann, 1996; Chickering & Gamson, 1987; Good & Brophy, 2003; Loudén, Rohl, Barratt Pugh, Brown, Cairey, Elderfield, House, Meiers, Rivalland, & Rowe, 2005; Loudén, Rohl, & Hopkins, 2008). Seeking to improve the quality of teaching, Bligh (2000, as cited in Mulryn-Kyne, 2010) and Costin (1972, as cited in Mulryn-Kyne, 2010) found that the effectiveness of traditional lectures could be enhanced by integrating them with other approaches, for example, online teaching and other interactive and cooperative learning activities. Also, Karp & Yoels (1976, in Mulryn-Kyne, 2010) noted a link between students' in-class participation and their engagement with course reading materials. Thus for lectures to large classes to be used effectively, educators must mindfully consider curriculum design elements that best promote active learning and student engagement through the integrated use of cooperative learning and technology.

Over the last 15 years considerable use has been made of computer-based learning materials, notably in science and medical education and training. The related literature that describes and evaluates the effectiveness and potential of computer-based learning provides useful insights and advice. For example, Young (2003) draws the important distinction between computer-based materials that provide no more than decontextualized passive knowledge from those that require application and utilization of knowledge, arguing that computer-based materials should aim to be of the latter type. Millheim (1996) suggests that, to best achieve the benefits of computer-based instruction, the materials should be interactive, provide comprehensive navigation options, and give the student relevant feedback. Wills and McNaught (2002) explain how systematic, lifelong learning is encouraged by computer-based learning materials that use dynamic, context rich examples to foster anticipative reasoning and self-explanation of solutions. Baillie and Percoco (2000) weigh the advantages of using computer technology against the problems of doing so, and discuss the logistical aspects of providing computer-based learning. Leuthold (1999) suggests that students respond differently to computer-based learning depending on their individual learning preferences, so that students with "sequential" learning styles are more likely to prefer computer-based learning than students with "random" learning styles. Cook (2005) discusses the difficulties of evaluating the effectiveness of computer-based learning against traditional teaching methods that do not involve computers but suggests comparisons between different computer-based materials and models can usefully be made. The findings and suggestions put forward in the literature generally suggest that properly designed and appropriately integrated and supported computer-based materials can be an effective component of higher-level learning, but that the outcomes cannot be assumed and need to be monitored and evaluated in an appropriate way. Furthermore, effective design of first year university curriculum requires the selection, sequencing, and integration of knowledge, skills, and values, in ways that scaffold and support student learning and engagement (Kift, 2009).

As previously noted, first year Business Law units often attract a large and diverse student enrollment. Curriculum designers must therefore plan teaching and learning strategies that successfully engage large numbers of students with varying preference, abilities and needs. One of the constraints often apparent in teaching large classes is the inability of teachers and students to get to know one another. Disengagement has been linked to lack of connection between teachers and students, and between students themselves. Therefore curriculum designers should consider ways of providing opportunity for meaningful interaction (Cannon & Knapper, 2011; Chickering & Ehrmann, 1996; Chickering & Gamson, 1987; Loudén et al., 2005, 2008). In

the next section the authors describe how first year curriculum design principles were effectively implemented in the first year Business Law unit; particularly in relation to revising delivery of the course through the introduction of computer-based tutorials and deployment of teaching staff to build rapport and enhance student learning.

III. Rethinking Teaching and Learning in a Business Law Unit.

The redevelopment of the Business Law unit was based on extensive research and a review. In the second half of 2007, at the same time that the first author became the coordinator of this unit, the University initiated a university-wide curriculum review, *Curriculum 2010* (“C2010”). This was implemented in 2008–2010. A key part of C2010 was the systematic comprehensive review of all courses and programs. The C2010 process involved a review of the program learning outcomes and structure, and course information such as the unit name, credit value, syllabus, course learning outcomes, assessment, and tuition pattern. The specific outcomes for the C2012 process required that learning outcomes, derived from Curtin’s graduate attributes, be related to professional competencies and appropriate higher order thinking skills. Further, the collective experience of individual units was required to contribute to the achievement of overall course learning outcomes. As part of the review of every subject, issues and challenges identified in feedback from current and past students were identified and addressed to ensure more effective learning in the future. Changes to the renewed curricula were approved on the basis that it was appropriate to graduate and industry needs and where assessment and learning experiences were directly aligned to the achievement of unit and course learning outcomes. The Business Law unit discussed in this paper underwent its C2010 curriculum review in 2008 (Curtin University, 2009). Significant consideration was given to the requirements of discipline specific knowledge through a benchmarking process with other Australian universities that deliver equivalent courses. This ensured compliance with appropriate professional competencies. In addition, regard was had to student feedback data to identify existing issues affecting teaching and learning. This review provided the unit coordinator with reliable information on which to base curriculum renewal and achieve the three goals that are outlined in the next section.

Since Semester 2, 2006, Curtin University has collected student satisfaction data by means of online evaluation surveys known as *eVALUate*. The survey comprises eleven quantitative questions and two qualitative questions. These questions elicit responses from students about their teaching and learning experiences in each unit. As a further measure in reviewing the Business Law unit, the unit coordinator reflected on student feedback collected in the *eVALUate* surveys. Quantitative survey data indicated students were generally very satisfied with the course: 80% of students reported satisfaction in all areas of teaching and 90% in relation to overall satisfaction. By contrast, however, students’ responses to qualitative survey questions indicated they wanted more engaging learning opportunities and greater flexibility with learning resources. An analysis of the qualitative comments revealed that students liked the format of the in-house study guide provided as a primary source of information. They also liked the flexibility of resources available through the Blackboard learning management system. However, they did not want to purchase the prescribed textbook. The reasons given included a perceived lack of relevance of the textbook readings to the assessment tasks, as the other resources were sufficient to achieve success in the course; and the relatively high cost of the text. These factors, and the results of a benchmarking exercise against other Australian universities, informed the decision of the teaching team to implement changes to achieve three basic goals:

1. To base the new syllabus on commercially relevant topics that would be perceived as useful to business students, at least half of whom undertook no further legal studies after the first year unit.
2. To devise a curriculum that was relevant to industry that was set in an international context and included the University's graduate attributes as required by the C2010 initiative.
3. To deliver the course in a way that would effectively engage students whose learning experiences, expectations, and needs differed from previous generations.

In accordance with best practice in the delivery of transnational education (International Education Association of Australia, 2006; Mahmud & Sanderson, 2011) all of these goals were applied equally to each mode of delivery used in teaching the unit, whether face-to-face; online; or at campuses located outside of Australia.

To promote these aims, the teaching team undertook a review of available textbooks and resources. Learning resources that incorporated computer technology were favored because the team believed this aligned with students' learning preferences and that it would promote pedagogical transformation. As noted above, properly designed and appropriately integrated and supported computer-based materials can be an effective component of higher-level learning, but the outcomes cannot be assumed and need to be monitored and evaluated in an appropriate way. Therefore, the role of computer based materials was seen as a means to scaffold and support student engagement and provide an opportunity for more innovative methods of delivery. The relevance of the text and computer based materials would also be readily discernible to students. As a result of their review, the teaching team selected Lambiris' (2009) *First Principles of Business Law*, which comprised computer-based tutorials and a Source Book. These materials appeared to have provided a welcome degree of flexibility for students as well as promoting independent, self-directed learning.

Thus, in the present case study, the principles of scholarship were clearly applied (Glassick, 2000). The unit coordinator had clear goals for the redevelopment of the course, and undertook adequate preparation to ensure appropriate changes were made to the curriculum to enhance student learning in this context. The unit coordinator used appropriate methods to reach these decisions: C2010 course review, results of the eVALUate student satisfaction surveys, national benchmarking, and a review of available resources. In order to achieve significant results, the teaching team then utilized Kift's (2009) transition pedagogy to design curriculum to enhance student learning and engagement, and ensure successful learning outcomes through monitoring and evaluation. The three key elements of design, engagement, and monitoring and evaluation are discussed in the following sections.

A. Design.

First year curriculum design and delivery should be student-focused, explicit and relevant in providing the foundation and scaffolding necessary for first year learning success. This requires that the curriculum must be designed to assist student development and to support their engagement with learning environment through the intentional integration and sequencing of knowledge, skills and attitudes (Kift, 2009, p. 41).

Prior to the C2010 curriculum review and selection of the *First Principles of Business Law* resource, the first year Business Law unit was delivered by means of a two-hour lecture and one-

hour tutorial each week. This required two large lecture streams with up to 600 students per lecture and more than 50 tutorial sessions per week. However, the Business Law teaching team considered the “lecture plus tutorial” design a poor use of human resources and an ineffective use of time. Moreover, this model did not effectively promote student engagement. Typically student attendance at tutorials was poor and those who did attend were often unprepared. In the redesigned unit, students attending face-to-face classes each semester at the main campus were divided into five groups of approximately 200. These groups attended a weekly three-hour seminar facilitated by a lecturer and a number of teaching assistants (actual numbers varied according to enrollment and the availability and size of venues). This teaching model was also adopted at the associated colleges and branch campuses, although the seminar sessions were smaller, usually comprising one lecturer and 40 students. Consequently, the delivery of the unit outside of the main campus did not necessitate the introduction of teaching assistants in class as the lecturer alone was able to effectively promote student engagement with seminars of this size.

This one design change would have been insufficient to reap the desired outcomes of efficiency and effectiveness in terms of student learning and use of resources. Further design changes were therefore implemented, to include a range of learning activities within the three-hour seminar, and to support students’ independent learning outside of timetabled classes through the use of computer-based tutorials and a change of staffing to deliver the course. In general, students responded well to these changes. Typical comments from students are:

I have found the structure really helpful. I really enjoy having the teaching assistants around. [In] the more relaxed atmosphere, I seem to be able to concentrate really well, even if the lecture is three hours, and am able to learn, apply and remember the content! So thanks for being brave enough to deviate from the “classic/traditional” lecture (Student 2009, post to discussion board).

The new structure was great. The revision for each lecture allowed us to see where we need to focus. The work examples allowed us to apply the knowledge of the lecture. Gave the feeling of why and how to use the information in the lecture. The teaching assistants were a great help too. Getting the one-to-one help allowed us to understand some of the little problems (Student 2009, Semester 1 eVALUate comments Business Law 100).

It must be acknowledged that there was some initial resistance when the new structure was first implemented (see Appendix 1). However following refinement of delivery techniques, through improved staff training and development, and with clearer directions provided to students regarding resources and linkages to assessment tasks, students were overwhelmingly in favor of the structure as one that supported and enhanced their learning experience by an estimated ratio of approximately 3:1 (see Appendix 2).

The computer-based tutorials provided important follow-up to each week’s seminar. The *First Principles of Business Law* tutorial software is loaded directly onto the student’s own computers, so tracking actual usage is not possible. However students’ willingness to use these materials is reflected in number of students who purchased them (taking into account their reluctance to purchase the previously prescribed materials) and the improved pass rates as noted in Table 3.

The interactive tutorials provided students with access to relevant, clear, and concise information on which to build further the knowledge acquired in seminars. The interactive nature

of the tutorials, involving questions, answers and feedback, helped students to test their grasp of topics and broaden their understanding. Students reported their satisfaction with the interactive nature of the computer-based tutorials.

I mostly found the computer-based tutorials helpful. After attending a lecture and reading the text book chapter, the computer tutorials allowed me to test what I knew and what needed to be improved on (Student 2010, Semester 2 *eVALUate* comments Business Law 100).

Students also appreciated the flexibility afforded by this resource.

The at-home tutorials were convenient and I would consider them a lot more helpful than some of my tutorials for other units, as they allowed me to work at my own speed and linked exactly to the lectures (Student 2010, Semester 1 *eVALUate* comments Business Law 100).

Moreover, the computer-based tutorials provided students with a realistic model of the legal reasoning process: the description of specific facts from which legal issues arose; explanations of relevant legal principles and rules; and accounts of decided cases or legislative provisions that provided authority for rules. Thus, students were immersed in the “four step” process that was modeled in the tutorials. Additionally, one seminar was dedicated to teaching the four step process to ensure students could apply it.

Some of the most helpful parts of Business law this year would be the case studies and how we can go about doing the four step process. I believe that this practical application of the four step process helps us as students remember how to use this process effectively and correctly (Student 2009, Semester 1 *eVALUate* comments Business Law 100).

Students were required to submit written answers for 60% of assessments using the four-step process. The authors acknowledge that although the four step process is a commonly used problem-solving technique, there is some criticism of its use (Taylor, 2006).

Weekly seminars commenced with 30 minutes for revision of the previous topic. Questions in the revision quiz were selected from “focus questions” from the relevant chapter of *First Principles of Business Law* Source Book and as well as from the computer-based tutorials. Students used *Keypad*, a Turning Point Technologies audience response system, to respond to questions embedded in a PowerPoint presentation, in which anonymous student responses and correct answers were subsequently displayed. Students quickly realized the benefits of completing the independent learning component of the course provided by the computer-based tutorials. The revision sessions also helped students to see how the different elements of their learning were connected and allowed them anonymously to reflect on their own learning in comparison with their peers. The feedback from students in the subsequent student survey correlated with literature regarding the benefits of using audience response systems including improved feedback for staff and students, allowing for more responsive teaching and active engagement in class (Easton, 2009; Herried, 2006; Masikunas, Panayiotidis, & Burke, 2007). Typical comments illustrate this.

Love the clicker revision sessions—get feedback without having to be confronted about being wrong (Student 2009, Semester 1 *eVALUate* comments Business Law 100).

I love the “clickers,” that instant feedback on how you are going and how everyone else is going it a great incentive to keep aiming high (Student 2009, Semester 2 eVALUate comments Business Law 100).

The 30 minute revision sessions were followed by a lecture. This was aimed at providing an overview of the weekly topic. The lecture was followed by discussion and analysis of a case study. The logistics of engaging large cohorts of students through the implementation of student-centered activity-based interactive three-hour seminars are discussed in the following section.

B. Engagement.

Learning, teaching and assessment approaches in the first year curriculum should enact engaging and involving curriculum pedagogy and should enable active and collaborative learning. Learning communities should be promoted through the embedding in first year curriculum of active and interactive learning opportunities and other opportunities for peer-to-peer collaboration and teacher-student interaction (Kift, 2009, p. 41).

Active learning was embedded in the first year Business Law unit. As previously noted, the unit coordinator used *Keypad* to engage students in revision at the commencement of each seminar. *Keypad* was also used throughout the lecture to test students’ understanding of content. For example, after giving an explanation of a rule and providing practical examples of its application, the lecturer posed questions and students responded using *Keypad*. Feedback from eVALUate surveys indicated students enjoyed using *Keypad*; attendance improved and students were actively engaged in learning.

Even though it is three hours long, it is one of the most effective lectures and I never want to miss it because I feel like I actually learn in these lectures. There is no time to drift off or let my mind wander as the topics are clear, to the point and explained well (Student 2010, Semester 1 eVALUate comments Business Law 100).

In each seminar, the lecture was followed by a discussion and analysis of a case study. This allowed the concepts outlined in the lecture to be applied, reinforced, illustrated, and explained in greater depth. In this part of the seminar, students’ learning was supported by roaming teaching assistants. The assistants were typically final year law students from other local institutions. They were able to answer questions and give advice to individual students in the group. The four teaching assistants assigned to each seminar were consistently stationed in particular zones of the lecture venue and students were asked to sit in roughly the same zone each week. Thus the teaching assistants and students were able to develop a rapport that enhanced interaction and encouraged student engagement.

The way the unit is set out, with the 3 hour lecture and the online tutorials is extremely helpful. Having the lectures split up with the first half being lecture material and the second half being a case study, ensures I am able to grasp what has been taught in the first half of the lecture. Also the use of the “clickers” at the beginning of the lecture for revision ensures that I have understood what was taught in the lecture and the online tutorial from the week before. The help the lecturers and TAs [teaching assistants] provide online and in class is invaluable (Student 2010, Semester 1 eVALUate comments Business Law 100).

This strategy also increased efficiency. For example, even allowing for the significant presence of teaching assistants in seminars and for marking written assessments, fewer sessional staff were needed than before. The reduction on spending on sessional staff allowed for additional spending to provide “just in time” help for students. This cost has not been fully calculated yet but, as a rough indication, in Semester 1, 2008, there were 13 tutors to conduct 53 weekly tutorial groups. The first 13 of these tutorials were paid at a higher rate and the remainder at a “repeat” rate. In Semester 1, 2009, there were nine tutors who attended at five weekly seminars in groups of three or four, totaling 23 hours. The first attendance at the seminar by the tutor was paid at the higher rate, with subsequent hours in the seminar paid at the lower repeat rate. However, an additional lecturer was required for two of the three-hour seminars, but the costs still amounted to approximately half the previous payments to sessional staff for teaching. Therefore, additional monies were available for extra consultation and revision sessions.

From 2010 teaching assistants were also allocated a group of students for whom they had responsibility to “check-in” with via email and be their assigned teaching assistant as a first point of call for any queries. Students studying other than at the main campus were also supported in addition to the local teaching staff. Irrespective of how they were enrolled, all students could email the generic course email account and have their queries answered by the unit coordinator or participate in discussion board forums moderated by teaching assistants.

Engagement of students in learning outside of formal classes was facilitated by the *First Principles of Business Law* computer-based tutorials. Students were required to complete a designated tutorial each week, in their own time. The computer-based tutorials present students with short practical examples and questions. On answering the questions, students receive immediate on-screen feedback that explains the relevant law and how it applies in the circumstances of the example. Students appear to find this type of active learning more attractive, manageable and effective than simply reading traditional written texts. A discussion outlining the evidence-based approach adopted by the unit coordinator, substantiating such claims of student engagement, is provided in the next section.

C. Monitoring and Evaluation.

Good first year curriculum design is evidence-based and enhanced by regular evaluation that leads to curriculum development and renewal designed to improve student learning. The first year curriculum should also have strategies embedded to monitor students’ engagement in their learning and to identify and intervene in a timely way with students at risk of not succeeding or fully achieving desired learning outcomes (Kift, 2009, p. 41).

Following the 2008 curriculum review of the first year Business Law unit that was conducted in collaboration with the University’s Office of Assessment Teaching and Learning (OATL) appropriate monitoring and evaluation strategies were identified and implemented. Student satisfaction and achievement measures were embedded within the unit through summative assessment and online course and teacher evaluation surveys. At the conclusion of each semester the teaching team reflected on student achievement and satisfaction and responded by adjusting teaching and learning activities where appropriate.

At the end of the first year of implementation, the unit coordinator reflected on the effectiveness of the new teaching methods and resources against criteria recommended by legal educators (Johnstone, Patterson, & Rubenstein, 1998; O’Donnell & Johnstone, 1997; Lambiris &

Royall, 2000). The teaching and learning were also investigated and evaluated through student satisfaction surveys and a range of peer review processes. In 2011 the unit coordinator volunteered to participate in a quality teaching practices pilot study, which incorporated peer review of teaching processes (Atkinson & Bolt, 2010; Bolt, Kerr, & Wauchope, 2011). By these means, data about teaching and learning in the Business Law unit were collected through direct observation, video analysis, and a semi-structured interview, which yielded documentary evidence and a first-hand experiential account. Direct observation confirmed that the use of an audience response system informed students and the teaching team about student learning strengths and weaknesses. Video analysis enabled the researchers to compare teaching practices with an observation schedule derived from previous research, which had identified six dimensions of effective teaching—all of which were evident in the teaching practices described in this paper (Louden et al., 2005). The semi-structured interview provided documentary evidence of the unit coordinator's teaching excellence, which was recognized by the Australian Learning and Teaching Council, Curtin University, and Curtin Business School. Further findings are discussed in the following section. Overall findings from analysis of the data showed that a “teacher/student interaction strategy” had been successfully adopted and students were actively engaged through the use of an audience response system, a team teaching approach, and implementation of computer-based tutorials (Keyes & Johnstone, 2004; Trigwell & Prosser, 2003, p. 188).

IV. Discussion and Further Findings.

In this paper the authors have described the pedagogical transformation of a first year Business Law unit from a teacher-centered approach structured around the typical large lecture followed by a smaller tutorial, to a more student-oriented seminar approach characterized by active learning and supported by a team teaching approach, the integration of technology, and computer-based tutorials. As noted by Good and Brophy (2003) and Louden et al. (2005; 2008), the authors have also recognized the significance of the implementation of quality teaching practices in achieving successful student learning outcomes. Quotes from students attesting to their experiences of quality teaching in this course have been provided throughout this paper. These quotes have been extracted from student surveys and unsolicited comments posted to the unit learning management system Blackboard. The selections of quotes are representative of the types of comments made by students. In any one survey period in excess of 300 students have provided comments. Further quantitative results from the 2008–2010 *eVALUate* surveys indicated student satisfaction was 9.3% higher in this Business Law course than across the University.

Importantly there was significant improvement in student pass rates. Data obtained from the University Office of Planning showed the pass rate averaged for all locations in Semester 2, 2007 was 68%. In 2010, after implementation of the interventions and strategies previously described in this paper, the average for both semesters for all locations improved to 83%. There was an 8% increase in the pass rate for domestic students and, significantly, 20% or more for international students studying either at the main campus or at associated colleges or branch campuses.

Table 2. Summary of eVALUate data Business Law 100 across location and mode 2008 – 2010 showing percentage of students who agreed with the statements. Please note: Open University Australia students [one distinct online cohort] and Curtin College student enrolments are not included in the enrolment figures for eVALUate in all Tables, hence the annual enrolment numbers total less than the approximately 3000 total student enrollment for Business Law 100. Results extracted from the Common Core Course Portfolio, internally published document compiled by the Curtin Office of Teaching and Learning 2012.

Semester and student numbers	2/2008	1/2009	2/2009	1/2010	2/2010
eVALUate statements	1009	1713	1229	1509	1187
Response Rate	34%	41%	32%	36%	36%
The learning outcomes in this unit are clearly identified.	95	95	95	99	95
The learning experiences in this unit help me to achieve the learning outcomes.	88	91	90	96	92
The learning resources in this unit help me to achieve the learning outcomes.	90	93	91	96	93
The assessment tasks in this unit evaluate my achievement of the learning outcomes.	89	90	89	95	93
Feedback on my work in this unit helps me to achieve the learning outcomes.	83	82	88	93	89
The workload in this unit is appropriate to the achievement of the learning outcomes.	89	91	89	94	90
The quality of teaching in this unit helps me to achieve the learning outcomes.	88	92	91	96	92
Overall, I am satisfied with this unit.	89	92	92	95	94

Table 3. Overview of enrollment numbers and pass rates of first year Business Law 100 students from all locations 2007-2010.

Locations	2007		2008		2009		2010	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Domestic students	80% (837)	75% (473)	79% (826)	76% (826)	83% (943)	83% (492)	88% (819)	84% (359)
International onshore	52% (369)	62% (231)	62% (373)	72% (254)	76% (364)	67% (270)	77% (368)	76% (229)
International offshore	61% (483)	64% (432)	70% (572)	76% (457)	80% (536)	79% (438)	80% (548)	85% (558)
Average pass rates	68% (1689)	68% (1136)	73% (1771)	75% (1205)	81% (1843)	78% (1200)	83% (1735)	83% (1146)

While the provision of prompt effective feedback has been recognized as essential to student learning, many educators have struggled to satisfy students' demands in this area (Chickering & Ehrmann, 1996; Chickering & Gamson, 1987). Providing feedback during the learning process to very large numbers of students could be hampered by logistical, budgetary, and time constraints. In this case, one of the main ways of providing feedback to students was through the computer-based tutorials, which provided clear, detailed, and immediate feedback to students as they worked. As asserted by Karp & Yoels (1976, as cited in Mulryan-Kyne, 2010), student engagement with course reading was linked to their in-class participation; for example, students received further feedback when they were asked to use *Keypad* to respond to questions

related to the computer-based tutorials in the weekly revision sessions—this in turn encouraged students to engage more with the computer-based tutorial material and actively involved them in learning during seminars. In this first year Business Law unit students received additional computer-based forms of feedback through the use of a dedicated email account and through discussion forums via the Blackboard learning management system, which was monitored closely by teaching assistants. In 2010 the unit coordinator implemented the use of audio voice files to provide feedback on assignments and mid-semester tests. Audio feedback (Lunt & Curran, 2009; Butler, 2011) in the form of a recorded MP3 file using the *Audacity* software was accessible through students' grade center on Blackboard, or embedded in their assessment and returned by email. This provided a remarkable opportunity to provide rich and personalized feedback to large numbers of students in a timely and efficient way.

Thank you for the feedback. This is invaluable to my understanding of this subject. I compare the quality in the delivery from Curtin School of Business Law with another university I am doing a subject concurrently where I have only received the raw score ... it really is like comparing chalk and cheese (Student 2009, Semester 1 eVALUate comments Business Law 100).

In the context of personalizing the large group experience, this also provided a connection to a “real” person, someone has called students’ by their name and “spoken” to them about their work and progress and ways they can improve. The use of the audio voice file feedback importantly connects with students studying online.

The audio feedback is fantastic!! I wish all of my units provided the same. I know exactly where I went wrong and the areas I need to improve—whereas in some units I've felt completely left in the dark. Thank you for the additional time and effort you guys are putting into assisting the people who can't have face-to-face discussions; it helps break down the isolation barrier of studying externally (Curtin external Student 2010, post to discussion board Semester).

I received my assignment back last night and was absolutely blown away with both the result and the feedback—fantastic! This is my 12th subject with OUA but my first with Curtin and I am so impressed with the Curtin system of teaching long distance and the professional manner in which we as students are treated. I really want to congratulate all the tutors on their great work, it's the first time I have really felt like I was part of a “Uni” and not just sitting at home learning stuff in my own little world. This really shows in the results I received and I am now really looking forward to doing assignment 2 (OUA Student 2010, post to discussion board Semester 1).

Significantly, early indications suggest that not only has the use of audio feedback led to an improvement in the student experience, but it has also produced real improvement in student results, particularly for online students. Open University Australia (fully online) students' results increased significantly when audio feedback was used in 2010 instead of traditional methods. The average final mark for OUA students in 2007 and 2008 was 51%. In 2009 after the implementation of the teaching strategies and new materials described above it was 54%. Following the introduction of audio voice file feedback in 2010 the average mark increased further to 58%. Table 4 shows an exponential improvement in Open University Australia fully online students when audio feedback is used instead of traditional methods.

Table 4. Assessment scores of OUA students 2009-2010 shown as percentages. Student enrollment numbers for each study period are in excess of 200.

	SP1 2009	SP 3 2009	SP1 2010	SP 3 2010
	Average mark	Average mark	Average mark	Average mark
Assign 1	12.91	13.4	13.6	12.9
Assign 2	14.94	13.4	16.03	15.3
Exam	25.81	27.26	29.72	28
Final Mark	53.66	54.4	59.35	56.2

In teaching, one of the most important factors for success is the ability to personalize the curriculum, thus providing connection and challenge for students (ALTC & TEDI, 2003). The ability to build relationships between students and teachers and between students themselves impacts on student retention, course completion, graduation, and ultimately employability (Cannon & Knapper, 2011). To facilitate such relationships in the teaching on the main campus, where there were approximately 200 students in each seminar group, the students were encouraged to sit in the same place each time they attended seminars and the four teaching assistants were consistently stationed in the same locations. In addition to this, students and teaching assistants could interact through designated support and consultation channels. Thus students and teaching assistants could get to know each other, overcoming the anonymity so frequently associated with large classes. Students were further able to personalize the curriculum through self-directed learning facilitated through the computer-based tutorials. This was particularly important for students from diverse linguistic and cultural backgrounds as it enabled them to set their own pace and provided them with a firm foundation.

In the overseas venues, class sizes are smaller and the relationships between students and their teachers are easier to achieve. But the students may find that the prescribed materials do not specifically relate to their own countries. One way of addressing this issue is to contextualize the materials. For the Business Law unit this has been done by writing a supplementary chapter, in collaboration with the local lecturers, on matters pertaining to the various jurisdictions, in Mauritius, Singapore, and Malaysia. This additional chapter is published with the prescribed materials. One week in the syllabus is then set aside for these students to make a comparative analysis of their own jurisdiction. Responses have been positive.

It's not just theory and theory again...there's a real opportunity to practice what we learn and see how things work in real life. Learn best like that (Student 2009, Semester 1 eVALUate comments CTI student Mauritius Business Law 100).

The Business Law Unit will be far more challenging for our B.Com Students. It is fantastic that Curtin has found this clever way of including local content in the unit (Program Director email, CTI Mauritius 2008).

Another way to engage students is to use discussion boards and emails to foster greater connectedness with the wider student cohort. Regular contact with all students enhances the experience and builds confidence, especially important for first year students.

Thank you for your kind thoughts towards us throughout this semester. It's a simple yet empowering gesture of love and concern for your students. It's

received with much appreciation and gratitude (Curtin Singapore student 2011 email Semester 2).

V. Conclusion.

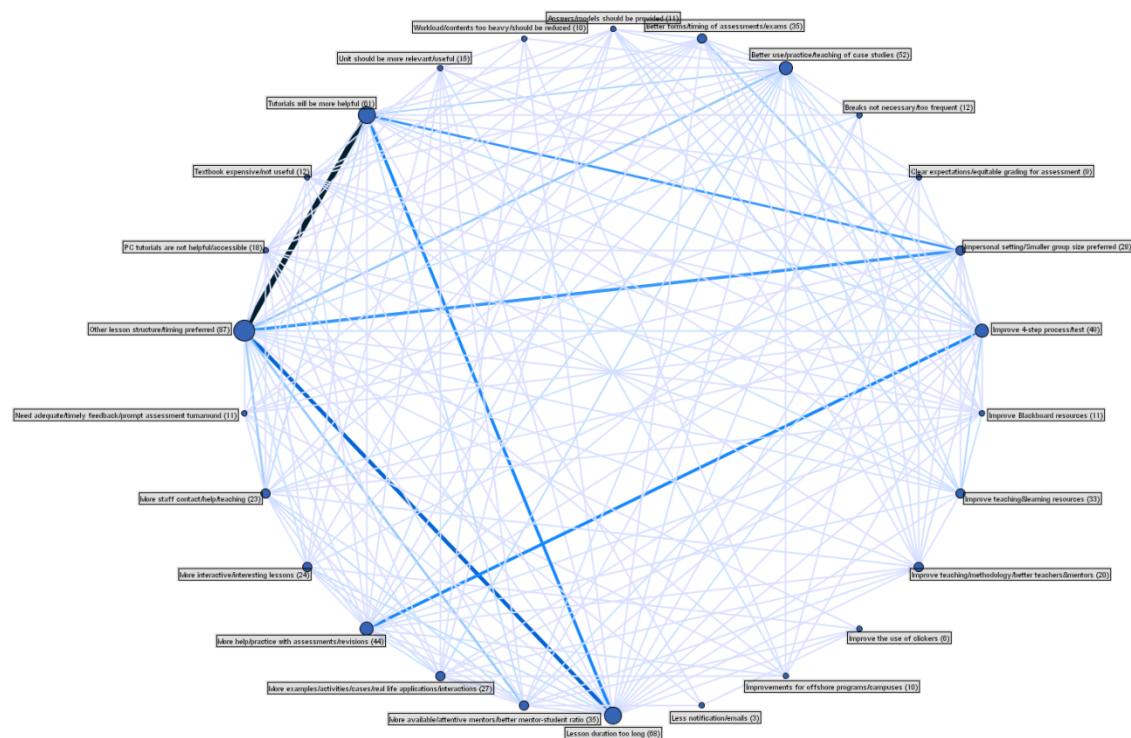
Preliminary research findings indicated that students were actively engaged in learning in the new first year Business Law unit. There was effective linkage between the seminars and computer-based tutorials, and quality teaching practices were identified, chosen and employed. The application of relevant first year curriculum design principles result in improved student engagement and active learning. Further improvements will need to be made. For example, qualitative analysis of recent student comments on the unit satisfaction survey has indicated some resistance to a three-hour seminar, with a third of students perceiving it as being “too long.” And, in the future, further research could be conducted to investigate additional ways to enhance engagement. For example the current teaching team has adopted the use of animated slides and the use of Twitter for question and answer sessions may be trialed.

The authors have sought to make an effective presentation of this case study, by presenting the findings as a narrative and substantiating the conclusions with relevant data from sources such as documentation, interviews, direct and participant observation, physical artifacts, and archival records. Student satisfaction data were collected over several years from large cohorts of students studying in this unit in multiple locations. The teaching initiatives and outcomes achieved by the unit coordinator have been recognized through numerous and rigorous peer review processes. Just as the unit coordinator engaged in reflective critique in relation to the unit, resources, student learning, and the teaching team, the authors have engaged in reflective critique in presenting this case study. The findings may be of interest to academics in higher education concerned with making a shift from teacher-centered to more student-oriented learning approaches.

The ideas presented in this paper may also be of interest to teachers experimenting with “flipped classrooms” which, currently, is a popular strategy to create more student-centered active learning environments (Educause Learning Initiative, 2012). In this case, the unit coordinator “flipped” the tutorial session by utilizing computer-based learning that students could access at their own pace and receive immediate feedback on their answers to stimulus questions. In the seminar, the unit coordinator used *Keypad* to generate active learning in a large class setting. To diminish isolation and increase rapport in a large class setting team teaching strategies were implemented in this case. Other teachers of large classes could adopt similar strategies in their own settings to promote active learning and student engagement. It has been suggested that strategies which focus on making large group teaching more active, such as the ones described in this paper, may go some way to addressing the problems inherent in teaching courses with large enrollment numbers (Mulryan-Kyne, 2010; Fitzpatrick, 2009). Also, this case study may be of interest to academics seeking an example of how the principles of scholarship and first year curriculum design were applied in a large class setting in multiple locations (Glassick, 2000; Kift, 2009).

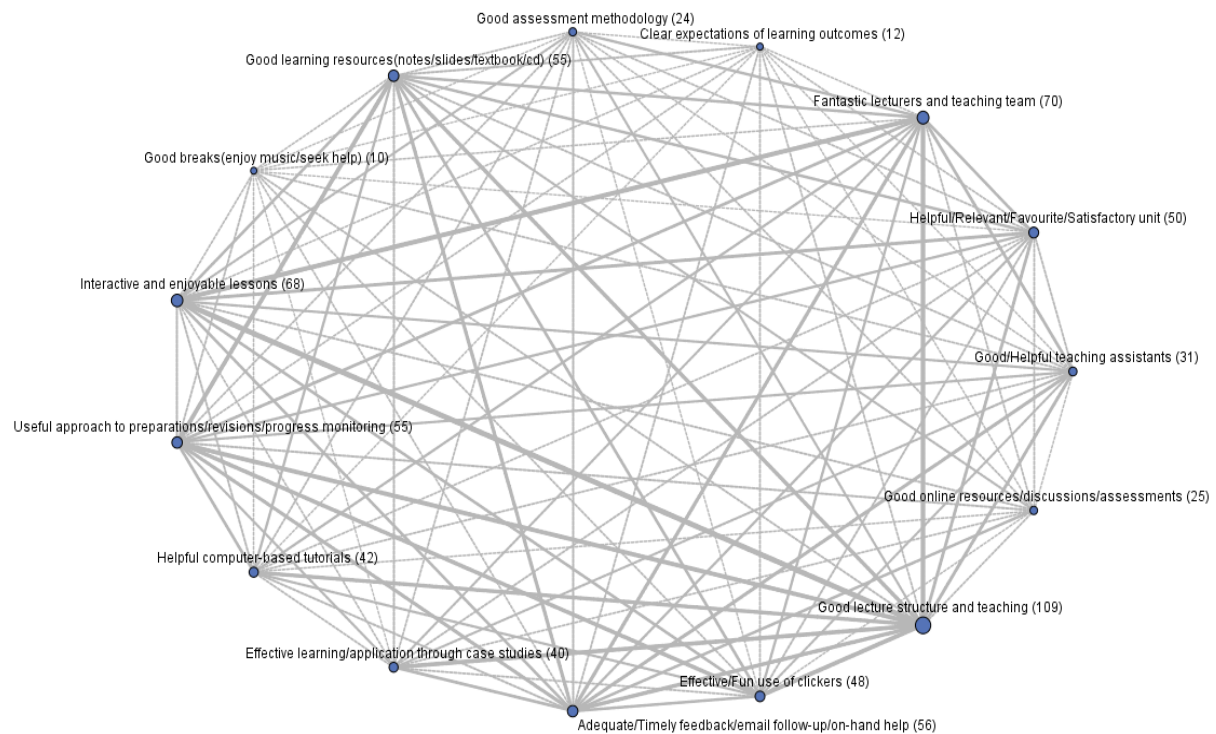
Appendix

Appendix 1. Spider graph of student responses about what needs improving in Business Law 100



Students commented that the three-hour seminar was too long, and would prefer other lesson structure, particularly tutorials (which offer smaller group settings and allow students to interact/ask questions within the class). In conjunction with this suggestion, students felt that case studies would be better taught and discussed outside the seminar context (discussion time too long with lags, lack of teaching/feedback as mentors move between groups/individuals, inadequate examples/answers, etc). Students would also like to receive more help on the four-step process.

Appendix 2. Spider graph of student responses about what they liked best in Business Law 100



Students were overwhelmingly enthused about the format of the three-hour lectures/seminars, particularly paying tribute to the lecturers and the teaching assistants and to the interactive and fun nature of the learning process. The teachers were further credited for being available to provide timely and adequate follow-up and feedback, through the following means:

- Emails reminders
- Audio feedback on assignments
- Guidance during lectures/breaks

Students were also very satisfied with the learning resources provided, ranging from the online resources (such as computer tutorials, audio feedback, iLectures) to the revision notes, textbook and the accompanying CD Rom.

References

Altbach, P.G., Reisberg, L., & Rumbley, L.E. (2009). *Trends in global higher education: Tracking an academic revolution*. Executive Summary: A report prepared for the UNESCO 2009 World Conference on Higher Education. Paris: UNESCO.

Atkinson, D., & Bolt, S. (2010). Using teaching observations to reflect upon and improve teaching practice in Higher Education. *Journal of Scholarship of Teaching and Learning*, 10 (3), 1–19.

Australian Universities Teaching Committee & Teaching and Educational Development Institute (“ALTC & TEDI”) (2003). *Teaching Large Classes Project 2001 Final Report*. Canberra: ALTC.

Baillie, C., & Percoco, G. (2000). A study of present use and usefulness of computer-based learning at a technical university. *European Journal of Engineering Education*, 25(1), 33–43.

Bligh, D.A. (2000). *What’s the use of Lectures?* San Francisco: Jossey-Bass.

Bolt, S., Kerr, R., & Wauchope, V. (2011). Using video analysis software to create innovative teacher professional development. *ICICTE 2011 Conference*, Rhodes, July 7–9.
<http://www.icicte.org/ICICTE11Proceedings.htm>

Butler, D.A. (2011). Closing the loop 21st century style: Providing feedback on written assessment via MP3 recordings. *Journal of Australasian Law Teachers Association*, 4(1&2), 99–107.

Cannon, R., & Knapper, C. (2011). HERDSA Guide: Lecturing for better learning. Higher Education Research and Development Society of Australasia.

Chickering, A., & Ehrmann, S. (1996). Implementing the seven principles: Technology as a lever. *The American Association for Higher Education Bulletin*. Retrieved November 15, 2011, from <http://www.tltgroup.org/prgrams/seven.html>

Chickering, A., & Gamson, Z. (1987). Seven principles for good practice in undergraduate education. *The American Association for Higher Education Bulletin*. Retrieved November 15, 2011, from <http://www.2honolulu.jawaii.edu/facdev/guidebk/teachtip/7princip.htm>

CBS Teaching and Learning Role Statement (2011). Retrieved from http://blogs.curtin.edu.au/cbs-staff/files/2010/07/Role-Statement-Unit-Coordinator_FINAL-v12.pdf

Curtin University. (2011). Future Students. Retrieved November 3, 2011, from <http://futurestudents.curtin.edu.au/school-leavers/>

Curtin University. (2009). Retrieved August 16, 2009, from <http://c2010.curtin.edu.au/local/docs/courserenewalprocess.doc>

Cook, D.A. (2005). The research we still are not doing: An agenda for the study of computer-based learning. *Academic Medicine*, 80(6), 541–548.

Costin, F. (1972). Lecturing versus other methods of teaching: A review of research. *British Journal of Educational Technology*, 3(1), 4–30.

Easton, C. (2009). An examination of clicker technology use in legal education. *Journal of Information, Law & Technology* (JILT), 3, retrieved 3 November 2011
http://go.warwick.ac.uk/jilt/2009_3/easton

Educause Learning Initiative. (2012). 7 things you should know about ... flipped classrooms. Retrieved from <http://net.educause.edu/ir/library/pdf/ELI7081.pdf>

Fetherston, T. (2010). Artichoke video analysis software. T.fetherston@ecu.edu.au

Fitzpatrick, S. (2009). The challenge of teaching law subjects with large and diverse student cohorts. *Journal of the Australasian Law Teachers Association (JALTA)*, 2, 113–119.

Glassick, C.E. (2000). Boyer's expanded definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the scholarship of teaching. *Academic Medicine*, 75(9), 877–880.

Good, T., & Brophy, J. (2003). *Looking in Classrooms* (9th ed.). New York: Macmillan.

Harvey, L., Drew, S., & Smith, M. (2006). *The First Year Experience: A Review of Literature for the Higher Education Academy*. Centre for Research and Evaluation: Sheffield Hallam University.

Herreid, C.F. (2006). "Clicker" cases: Introducing case study teaching into large classrooms. *Journal of College Science Teaching*, 36(2), 43-7.

International Education Association of Australia. (2006). *Outcomes of universities transnational education good practice projects (Final report)*. Commissioned by the Australian Education International & Department of Education, Science and Training, Commonwealth of Australia.

Johnstone, R., Patterson, J., & Rubenstein, K. (1998). *Improving Criteria and Feedback*. Australia: Cavendish Publishing.

Karp, D.A., & Yoels, W.C. (1976). The college classroom: Some observations on the meaning of student participation. *Sociology and Social Research*, 60, 421–439.

Keyes, M., & Johnstone, R. (2004). Changing legal education: Rhetoric, reality, and prospects for the future. *Sydney Law Review*, 26, 537–564.

Kift, S. (2008). 21st century climate for change: Curriculum design for quality learning engagement in law. *Legal Education Review*, 18, 1–30.

Kift, S. (2009). Articulating a transition pedagogy to scaffold and to enhance the first year student learning experience in Australian higher education. *Final Report: Australian Learning and Teaching Council Senior Fellowship Program*, 1–58.

Lambiris, M. (2009). *First Principles of Business Law Interactive Tutorials and Sources Book*. Australia: CCH Australia.

Lambiris, M., & Royall, B. (2000). Evaluating computer-assisted teaching materials: The Australian law courseware project. *ALTA 2000 Conference*, Australia.

Leuthold, J.H. (1999). Is computer-based learning right for everyone? Proceedings of the 32nd Annual Hawaii International Conference on System Sciences, 1015–1022. Retrieved 12 April, 2012, from http://www.computer.org/portal/web/search/simple?action=simplesearch&yearTo=2010&yearFrom=1960&monthTo=12&monthFrom=01&sortField=DocWeight&sortOrder=descending&checkAbstract=yes&searchDatabases=proceedings&queryText1=Is+computer-based+learning+right+for+everyone%3F++&queryOption1=DC_TITLE

Louden, B., Rohl, M., Barrett Pugh, C., Brown, C., Cairney, T., Elderfield, J., House, H., Meiers, M., Rivalland, J., & Rowe, K. (2005). *In Teachers' Hands: Effective Literacy Teaching Practices in the Early Years of Schooling*. Mount Lawley: Edith Cowan University.

Louden, B., Rohl, M., & Hopkins, S. (2008). *Teaching for Growth: Effective Teaching of Literacy and Numeracy*. Nedlands: University of Western Australia.

Lunt, T., & Curran, J. (2010) 'Are you listening please?' The advantages of electronic audio feedback compared to written feedback. *Assessment & Evaluation in Higher Education*, 35 (7), 759 — 769.

Mahmud, S., & Sanderson, G. (2011). Moderation for fair assessment in transnational learning and teaching. *Final Report, Australian Teaching and Learning Council*.

Masikunas, G., Panayiotidis, A., & Burke, L. (2007). The use of electronic voting systems in lectures within business and marketing: A case study of their impact on student learning. *ALT-J*, 15(1), 3-20.

Millheim, W.D. (1996). Interactivity and computer-based instruction. *Journal of Educational Technology Systems*, 24(3). Retrieved April 12, 2012, from <http://www.metapress.com.dbgw.lis.curtin.edu.au/content/9v8j48tx461cdxvg/?p=252aeaf6431f4e21bc012e6a6ec02756&pi=2>

Mulryan-Kyne, C. (2010). Teaching large classes at college and university level: Challenges and opportunities. *Teaching in Higher Education*, 15(2), 175–185.

O'Donnell, A., & Johnstone, R. (1997). *Developing a Cross-Cultural Law Curriculum*. Australia: Cavendish Publishing.

Owens, A., & Wex, I. (2010). What are the challenges involved and the strategies employed in teaching Australian law to non-law students from non-English speaking backgrounds and cultures? *Journal of the Australasian Law Teachers Association* ("JALTA"), 3, 89–98.

Renkl, A., & Atkinson, R.K. (2002). Learning from examples: Fostering self-explanations in computer-based learning environments. *Interactive Learning Environments*, 10(2), 105–119. Retrieved April 12, 2012, from <http://www.tandfonline.com.dbgw.lis.curtin.edu.au/doi/pdf/10.1076/ilee.10.2.105.7441>

Taylor, G. (2006). Structured problem-solving: Against the ‘step-by-step’ method. *Deakin Law Review*, 11(1), 89–101.

Tight, M. (2003). *Researching Higher Education*. England: Society for Research into Higher Education & Open University Press.

Trigwell, K., & Prosser, M. (2003). Qualitative difference in university teaching. *Access and Exclusion*, 2, 185–216.

Yin, R.K. (2009). *Case Study Research: Design Methods*, (4th ed. Vol. 5) USA: Sage Publications Inc.

Young, L.D. (2003). Bridging theory and practice: Developing guidelines to facilitate the design of computer-based learning environments. *Canadian Journal of Learning and Technology*, 29(3). Retrieved April 12, 2012, from <http://www.cjlt.ca/index.php/cjlt/article/view/90/84>